s**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (original): A resample length determination method of setting a resample length between sampling points to resample a linear object so that an error between a resample shape concatenating the sampling points as a line and the linear object does not exceed a predetermined allowable error.

Claim 2 (original): A determination method of a resample length between sampling points to resample a linear object, said resample length determination method comprising the steps of:

determining whether or not the shape of the linear object is approximate to a part of a circular arc under a predetermined condition;

calculating a curvature radius of the linear object if it is determined that the shape is approximate to a part of the circular arc as the result of said determining step;

setting the resample length so that an error between a resample shape concatenating the sampling points as a line and the linear object does not exceed a predetermined allowable error if the curvature radius of the linear

object is equal to or greater than a predetermined value;
and

setting the resample length by making the linear
object approximate to a polygon corresponding to the
curvature radius if the curvature radius of the linear
object is equal to or less than the predetermined value.

Claim 3 (original): The resample length determination
method as claimed in claim 1 or 2 wherein

in said step of setting the resample length so that an
error between a resample shape concatenating the sampling
points as a line and the linear object does not exceed a
predetermined allowable error if the curvature radius of
the linear object is equal to or greater than a
predetermined value, the resample length is determined
based on the value of a determination expression containing

$(r2-(r-Emax)2)$

where r is the curvature radius of the linear object and
Emax is the allowable error.

Claim 4 (original): The resample length determination
method as claimed in claim 2 wherein

in said step of setting the resample length by making
the linear object approximate to a polygon corresponding to
the curvature radius if the curvature radius of the linear
object is equal to or less than the predetermined value,

the resample length is determined based on a determination expression containing Kr·r using the curvature radius of the linear object, r, and a fixed parameter Kr.

Claim 5 (original): The resample length determination method as claimed in claim 2 wherein

in said step of setting the resample length by making the linear object approximate to a polygon corresponding to the curvature radius if the curvature radius of the linear object is equal to or less than the predetermined value, the allowable error is changed in response to the curvature radius so that the smaller the curvature radius, the smaller the allowable error.

Claim 6 (original): A determination method of a resample length between sampling points to resample a linear object, said resample length determination method further comprising the steps of:

determining whether or not the shape of the linear object is approximate to a part of a circular arc under a predetermined condition;

if it is determined that the shape of the linear object shape object contains a bend portion which is not approximate to a part of the circular arc as the result of said determining step, making the bend portion approximate

to a part of a circle with an error from the bend portion

not exceeding an allowable error; and

calculating the value of the determination expression

and determining the resample length based on the calculated

value.

Claim 7 (original): A determination method of a

resample length between sampling points to resample a

linear object, said resample length determination method

comprising the steps of:

determining whether or not the shape of the linear

object is approximate to a part of a circular arc under a

predetermined condition; and

if it is determined that the shape of the linear

object shape object contains a bend portion which is not

approximate to a part of the circular arc as the result of

said determining step, selecting a predetermined resample

length in response to the deflection angle magnitude in the

portions preceding and following the bend portion.

Claim 8 (currently amended): The resample length

determination method as claimed in ~~any one of claims 2 to 7~~ claim 2 wherein

said step of determining whether or not the shape of

the linear object is approximate to a part of a circular

arc is executed using the deflection angle magnitude or the

relationship between the deflection angle and the node-to-node distance.

Claim 9 (currently amended): A coded data generation method of a linear object, comprising the steps of:

determining a resample length of the linear object by a method as claimed in ~~any of claims 1 to 8~~ claim 1;

resampling the linear object according to the determined resample length to set a plurality of sampling points;

representing position data of each sampling point by an angle component having an occurrence frequency bias; and

performing variable-length coding for a data string of listing the position data represented by the angle component in order.

Claim 10 (currently amended): An apparatus comprising a resample length determination section for determining a resample length between sampling points to resample a linear object using a resample length determination method as claimed in ~~any one of claims 1 to 8~~ claim 1.

Claim 11 (currently amended): A coded data generation apparatus comprising:

a resample length determination section for determining a resample length between sampling points to

resample a linear object according to a resample length
determination method as claimed ~~in any one of claims 1 to
8~~ claim 1;

a resample processing section for resampling the
linear object according to the resample length determined
by said resample length determination section to set a
plurality of sampling points; and

a variable-length coding processing section for
representing position data of each sampling point set by
said resample processing section by an angle component
having an occurrence frequency bias, and performing
variable-length coding for a data string of listing the
position data of each sampling point in order to compress
the data.

Claim 12 (currently amended): A probe car installed
machine for reporting a run locus of a probe car, said
probe car installed machine comprising:

a resample length determination section for
determining a resample length between sampling points to
resample a linear object according to a resample length
determination method as claimed ~~in any one of claims 1 to
8~~ claim 1;

a resample processing section for resampling the
linear object according to the resample length determined

by said resample length determination section to set a plurality of sampling points; and

a variable-length coding processing section for representing position data of each sampling point set by said resample processing section by an angle component having an occurrence frequency bias, and performing variable-length coding for a data string of listing the position data of each sampling point in order to compress the data.

Claim 13 (original): A program for causing a computer to determine a resample length between sampling points to resample a linear object, said program for causing the computer to execute the steps of:

determining whether or not the shape of the linear object is approximate to a part of a circular arc under a predetermined condition;

calculating a curvature radius of the linear object if it is determined that the shape is approximate to a part of the circular arc as the result of said determining step;

setting the resample length so that an error between a resample shape concatenating the sampling points as a line and the linear object does not exceed a predetermined allowable error if the curvature radius of the linear object is equal to or greater than a predetermined value; and

making the linear object approximate to a polygon corresponding to the curvature radius if the curvature radius of the linear object is equal to or less than the predetermined value.

Claim 14 (original): A coded data decoding apparatus comprising:

a reception section for receiving coded data provided using a coded data generation method of a linear object as claimed in claim 9; and

a reconstruction section for reconstructing the received coded data.